[7590-01-P]

NUCLEAR REGULATORY COMMISSION

[NRC-2014-0173]

Acute Uranium Standards for Integrated Safety Analyses

AGENCY: Nuclear Regulatory Commission.

ACTION: Draft interim staff guidance; request for comment.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is soliciting public comment on its draft Interim Staff Guidance (ISG) Acute Uranium Exposure Standards. Fuel cycle facilities are required to submit Integrated Safety Analysis (ISA) summaries which include "proposed quantitative standards." These standards are used to determine when acute chemical exposure events analyzed in the ISA result in high or intermediate consequences. The NRC has developed an ISG document that identifies uranium intake quantities the staff finds acceptable for classifying uranium exposure events analyzed in ISAs.

DATES: Submit comments by **[INSERT DATE 75 DAYS FROM DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. Comments received after this date will be considered if it is practical to do so, but the Commission is able to ensure consideration only for comments received before this date.

ADDRESSES: You may submit comments by any of the following methods (unless this document describes a different method for submitting comments on a specific subject):

- **Federal Rulemaking Web Site:** Go to http://www.regulations.gov and search for Docket ID NRC-2014-0173. Address questions about NRC dockets to Carol Gallagher; telephone: 301-287-3422; e-mail: Carol.Gallagher@nrc.gov. For technical questions, contact the individual listed in the FOR FURTHER INFORMATION CONTACT section of this document.
- **Mail comments to:** Cindy Bladey, Office of Administration, Mail Stop: 3WFN-06-44M, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

For additional direction on accessing information and submitting comments, see "Obtaining Information and Submitting Comments" in the SUPPLEMENTARY INFORMATION section of this document.

FOR FURTHER INFORMATION CONTACT: James Hammelman, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001; telephone: 301-287-9108, e-mail: James.Hammelman@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Obtaining Information and Submitting Comments

A. Obtaining Information.

Please refer to Docket ID NRC-2014-0173 when contacting the NRC about the availability of information for this action. You may obtain information related to this action, which the NRC possesses and is publicly available, by any of the following methods:

- **Federal Rulemaking Web Site:** Go to http://www.regulations.gov and search for Docket ID NRC-2014-0173.

- **NRC's Agencywide Documents Access and Management System (ADAMS):**

You may obtain publicly available documents online in the ADAMS Public Documents collection at http://www.nrc.gov/reading-rm/adams.html. To begin the search, select "ADAMS Public Documents" and then select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to pdr.resource@nrc.gov. The draft ISG for Acute Uranium Standards is available in ADAMS under Accession No. ML14148A403.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

B. Submitting Comments.

Please include Docket ID NRC-2014-0173 in the subject line of your comment submission, in order to ensure that the NRC is able to make your comment submission available to the public in this docket.

The NRC cautions you not to include identifying or contact information in comment submissions that you do not want to be publicly disclosed in your comment submission. The NRC will post all comment submissions at http://www.regulations.gov as well as enter the comment submissions into ADAMS, and the NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such

information before making the comment submissions available to the public or entering the comment into ADAMS.

II. Background.

Fuel cycle facilities regulated under Part 70 of Title 10 of the *Code of Federal Regulations* (10 CFR), Subpart H, are required to submit ISA summaries which include "proposed quantitative standards" as required by 10 CFR 70.65(b)(7). These standards are used to determine when acute chemical exposure events analyzed in the ISA result in high or intermediate consequences as defined in 10 CFR 70.61.

In ISAs that the NRC staff reviewed prior to 2008, the staff evaluated licensee-proposed standards identifying high and intermediate acute uranium exposure events. Some licensees proposed 40 milligram (mg) uranium intake for defining high consequence events based on International Commission on Radiological Protection (ICRP) methodology while other licensees proposed 75 mg uranium intake based in ICRP 68 methodology. Both were accepted by the NRC staff for use in the licensee's ISAs. All licensees proposed 30 mg uranium for defining intermediate consequence events which were accepted by the staff. In December 2008, the Nuclear Energy Institute (NEI) submitted a report on acute uranium toxicity and requested that the NRC consider the uranium toxicity information in the report and provides guidance on uranium exposure standards that can be used in facility ISAs. The NRC staff reviewed the original NEI report and a revised version submitted in 2009 and also conducted an independent technical review of information on the chemical toxicity of uranium. The NRC staff found particularly useful information on acute uranium toxicity in studies conducted by the Royal Society and the U.S. Army, and the National Research Council review of the U.S. Army study. This information provided a basis for the staff identification of uranium renal concentrations that

are expected to lead to physiological effects comparable to those described as high and intermediate in 10 CFR 70.61. Based on its review of the uranium toxicity literature, including the NEI reports, NRC staff has identified acute uranium intake quantities that it considers acceptable for classifying acute worker uranium exposure events analyzed in ISAs as either high or intermediate consistent with the definitions in 10 CFR 70.61. These quantities are identified in the interim staff guidance. The information from the ISG will be incorporated into the next revision of NUREG-1520, "Standard Review Plan for the Review of a License Application for a Fuel Cycle Facility" (ADAMS Accession No. ML101390110).

Dated at Rockville, Maryland, this 10th day of September, 2014.

FOR THE NUCLEAR REGULATORY COMMISSION

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and Safeguards
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